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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/523,069

01/27/2005

Atsushi Tanno

OGW-0353

8379

7590 03/20/2008
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EXAMINER

BELLINGER, JASON R

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

03/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/523,069 | Applicant(s) TANNO, ATSUSHI | |
| | Examiner Jason R. Bellinger | Art Unit 3617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) 3-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Atwell, Jr. In Figures 4 and 4A, Atwell, Jr. shows a disk wheel 10 with a rim 16 located at the peripheral edge of the disk 14. The rim 16 includes inboard and outboard bead seats with a protruding hump and radially outwardly extending flanges. A ring-like element 18 circumferentially extends from the rim 16, and is located between the hump and inboard rim flange. The inboard annular rim flange includes an inboard facing surface that is generally co-planar with an inboard facing surface of the ring-like element 18. The ring-like element 18 is only provided on the inboard bead seat portion.

Atwell, Jr. does not specify that the cross-sectional area of the element 18 is 0.1-0.4 times larger than the cross-sectional area of the thickness of the rim flange plus the width-wise length of the bead seat multiplied by the thickness of the rim adjacent the hump. It would have been obvious to one of ordinary skill in the art at the time of the invention to form the ring-like element of Atwell, Jr. with a thickness sufficient to prevent the weight 26 from being dislodged during operation, and to serve as a reinforcing rib to distribute forces imparted on the rim.

3. Claims 1, 8-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Atwell, Jr. as applied to claim 12 above, and further in view of Archibald. Atwell, Jr. discloses that the wheel is a lightweight wheel 10, formed from an aluminum or magnesium alloy. The ring-like element 18 protrudes inwardly from the radially inner surface of the rim 16. The co-planar surface of the ring-like element 18 and the inboard rim flange extend in a direction generally orthogonal to the central rotation axis of the wheel.

Atwell, Jr. does not show only a single ring-like element located on the rim. Archibald teaches the use of a wheel having a rim with a single ring-like element 64. Therefore from this teaching, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the wheel of Atwell, Jr. with only ring-like element 18 thereon in order to reduce the weight of the wheel. Namely, one of ordinary skill in the art at the time of the invention would have found the use of a known technique to improve similar devices in the same way would yield predictable results. In this case, Archibald teaches providing only a single ring-like element on a rim, which would reduce the overall weight of the wheel. Atwell, Jr. shows a rim having a pair of ring-like elements. One of ordinary skill in the art would find it obvious to remove the second ring-like element 18 of Atwell, Jr. in order to reduce the weight of the wheel. See *KSR International Co. v. Teleflex Inc.* 550 U.S. ___, 82 USPQ2d 1385 (April 30, 2007).

Response to Arguments

4. Applicant's arguments with respect to claims 1 and 8-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Schmidt et al shows a wheel rim having ring-like elements thereon.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Bellinger whose telephone number is 571-272-6680. The examiner can normally be reached on Mon - Thurs (9:00-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 571-272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason R Bellinger/
Primary Examiner
Art Unit 3617